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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/699,847

11/04/2003

Jaan Hellat

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4039

21839

7590

04/01/2004

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EXAMINER

CASAREGOLA, LOUIS J

ART UNIT

PAPER NUMBER

3746

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,847

Applicant(s)

HELLAT ET AL.

Examiner

Louis J. Casaregola

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/002,137.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Objections To Specification

The specification is objected to under 37 CFR § 1.74 for failing to include a proper description of the elements designated in the drawing by reference characters 51-55. These elements are merely described as "signal lines" (page 5) without any indication of what signal or signals are being carried by each respective line.

Claim Rejections - 35 USC § 102

Claims 1 and 2 are rejected under 35 U.S.C. § 102(e) as being anticipated by Blatter et al.

The claimed method reads on the operation of conventional gas turbine power plants of the type disclosed by Blatter. Attention is called to Blatter's Figure 6; note that gas turbine burner 3 is supplied with fuel 6 as well as additional working medium 7, and the additional medium may be water as stated, for example, in the abstract. Note also that control unit 13 senses power output "P" and adjusts the water and fuel quantities in response thereto, with the adjustments being made independently, i.e. by way of separate fuel and water valves 11 and 12. With respect to claim 2, reference is additionally made to Figures 2 and 3, which indicate that once startup is completed at T_1 , water flow (m_{ZAM} graph) is always less than 20% of fuel flow (m_{BR} graph).

Claim Rejections - 35 USC § 103

Claims 3 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Blatter et al.

Blatter does not disclose a specific type of fuel, but Official notice is taken of the fact that it is notoriously well known to operate gas turbines on liquid fuels. Use of a liquid fuel in Blatter's engine would have thus been an obvious matter of simply operating a known engine with a type of fuel conventional for that engine.

Claims 4 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Blatter, like claims 3 and 5 above, and further in view of Campbell '435.

When a gas turbine combustor is supplied with both liquid fuel and water, as is the case when Blatter's turbine operates on liquid fuel, it is a known expedient to mix the fuel and water to form an emulsion upstream of the combustor as shown, for example, by Campbell; see mixing device 34. It would have been obvious to apply such a feature to Blatter's turbine engine for the reason specifically suggested by Campbell, i.e. to minimize the cost and complexity associated with separate fuel and water injection; see col. 2, lines 2-5.


Claims 7 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Blatter in view of Okamoto et al.

Blatter's system is shown in rough schematic form without the specific details of his apparatus for injecting fuel and water. Okamoto is therefore cited as showing an

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example of conventional apparatus for this purpose, the apparatus including fuel nozzles 23 and 35, and water nozzles 30. Such nozzles would have been a suitable and obvious means for filling in the missing details necessary to complete Blatter's fuel and water injection system.

L. J. Casaregola
703-308-1027 (M-F; 7:30-4:00)
703-872-9306 FAX
March 29, 2004



LOUIS J. CASAREGOLA
PRIMARY EXAMINER

If repeated attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu, can be reached at 703-308-2675.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).